IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

THE MAGNAVOX COMPANY, and SANDERS ASSOCIATES, INC., Plaintiffs, v. APF ELECTRONICS, INC., et al., Defendants.	Civil Action No. 77 C 3159

PLAINTIFFS RESPONSES TO INTERROGATORIES OF DEFENDANTS JEWEL, TURN-STYLE, OSCO, BENNETT BROTHERS, UNIVERSAL RESEARCH AND CONTROL SALES

Plaintiffs, The Magnavox Company and Sanders Associates, Inc., through their undersigned attorneys and agents, hereby respond to the interrogatories served upon them on November 15, 1978 by Jewel Companies, Inc., Turn-Style, Inc., Osco Drugs, Inc., Bennett Brothers, Inc., Universal Research Laboratories, Inc., and Control Sales, Inc., (hereinafter "defendants") under the title "Interrogatories to Plaintiffs by Defendants Jewel, Turn-Style, Osco, Bennett Brothers, Universal Research and Control Sales". The answers supplied are based on information obtained from those employees of both plaintiffs having knowledge of the relevant facts or the knowledge of plaintiffs' attorneys.

Interrogatory No. 1

(a) Identify every device of Defendants which Plaintiffs contend infringes one or more claims of the patents in suit.

(b) State which claims are allegedly infringed by Defendants and list separately every element of every claim which Plaintiffs contend is infringed by Defendants.

(c) With respect to every element so listed, state in detail how each element allegedly reads on portions of each device identified in the answer to Interrogatory No. 1(a). For clarity purposes, diagrams with reference numerals may be used in illustrating alleged readability of the claims on Defendants.

(d) Identify all documents and things upon which Plaintiffs base their contention that Defendants have been or are infringing the patents in suit.

(e) State the facts on which Plaintiffs base their contention and/or will rely to establish their contention that Defendants have been and still are infringing the patents in suit.

(f) Identify each person who has knowledge of the facts stated in the answers to Interrogatory Nos. 1(a) through 1(e) above.

RESPONSE TO INTERROGATORY 1

Plaintiffs are presently unable to provide a complete response to interrogatory 1 as defendants have not yet supplied them with complete information regarding the construction and operation of the video games made, used, or sold by defendants. Plaintiffs have previously initiated discovery to obtain that information. Plaintiffs will

supply the requested information to the extent they are presently able to do so, but reserve the right to add additional claims as alleged to be infringed, add additional games as alleged to infringe the patents in suit, alter their application of the claims alleged to be infringed against defendants' games, or otherwise alter or amend their response to this interrogatory as discovery in this action progresses.

(a) The following is a partial list of the games identified by the indicated defendants in their responses to plaintiffs' interrogatories or in documents produced in response to those interrogatories:

Universal Research and Control Sales

Indy 500

Sears Speedway

Video Action III

VAT Video Action

Jewel, Osco, Turn-Style

APF 401 TV Fun Mark I

APF 442 TV Fun

APF 402 TV Fun

Executive Games 0062 Face Off

Fairchild 0800 Console Channel F

National Semiconductor Adversary

Venture VS-1 Video Sports

Bennett Brothers

Unisonic Tournament 2000

APF TV Fun Game

First Dimension FD 3000 WTV Game

First Dimension '76C TV Game

RCA Studio II

Channel F

APF TV Fun Game w/Pistol

Unisonic Tournament 100

Unisonic Tournament 150

Unisonic Olympian 2600

Plaintiffs contend that each of the games listed above infringe the patents in suit. As to games identified in the defendants' responses to plaintiffs' interrogatories or in documents produced in response to those interrogatories which are not listed above, plaintiffs presently have no information upon which to make a determination as to whether those games infringe the patents in suit. Plaintiffs have not listed above games identified in the defendants' responses to plaintiffs' interrogatories or in documents produced in response to those interrogatories which are believed to have been manufactured and/or sold in accord with the terms of a license under the patents in suit to a third party even though the games use the subject matter of the patents in suit as those games are not here alleged to infringe the patents in suit.

(b) Based upon their present knowledge, information, and belief, plaintiffs contend that each of the games listed in their response to paragraph (a) of this interrogatory infringe at least claims 25, 28, 29, 31, 32, 44, 45, 51, 54, 55, 57, 60, 61, 62, 63, and 64 and that the Fairchild 0800 Console Channel F, Channel F, RCA Studio II, and Unisonic Olympian 2600 additionally infringe claims 26 and 52.

Plaintiffs refer to the patents in suit and their response to paragraph (c) of this interrogatory where every element of each of the claims plaintiffs contend are infringed are clearly set forth.

(c) Claims of Patent No. 3,659,284 and Re. 28,507:

25. In combination with a standard television receiver, apparatus for generating symbols upon the screen of the receiver to be manipulated by at least one participant, comprising:	Each of the games alleged to infringe this claim is for use in combination with a standard television receiver (except for VAT Video Action which includes a standard television receiver) as the display device and is operative to generate symbols on the screen of the receiver which may be so manipulated.
means for generating a hitting symbol, and	Each of the games alleged to infringe this claim has a symbol representing a paddle, player, etc., i.e., a hitting symbol, and so must also have means for generating that symbol.

means for generating a hit symbol including	Each of the games alleged to infringe this claim has a symbol representing a ball, puck, etc., i.e., a hit symbol, and so must have means for generating that symbol.
means for ascertaining coincidence between said hitting symbol and said hit symbol and means for imparting a distinct motion to said hit symbol upon coincidence.	In each of the games alleged to infringe this claim when the hit and hitting symbols become coincident, the hit symbol is given a distinct motion, so the game must include means for ascertaining when that coincidence exists and means for imparting a distinct motion to the hit symbol upon the occurrence of coincidence.
26. The combination of claim wherein said means for generating a hitting symbol includes means for providing horizontal and vertical control signals for varying the horizontal and vertical positions of said hitting symbol.	Each of the games alleged to infringe this claim is electrically operated has a hitting symbol movable in both the horizontal and vertical directions, so that the means for generating the hitting symbol must include means for providing control signals for varying the horizontal and vertical positions of the hitting symbol.
28. The combination of claim 25 wherein said means for generating a hit symbol includes means for providing horizontal and vertical control signals for varying the horizontal and vertical positions of said hit symbol.	Each of the games alleged to infringe this claim is electrically operated and has a hit symbol movable in both the horizontal and vertical directions, so that the means for generating the hit symbol must include means for providing control signals for varying the horizontal and vertical positions of the hitting symbol.

29. The combination of claim 28 wherein said means for providing horizontal control signals for said hit symbol includes means for causing said hit symbol to move back and forth across the screen when triggered.	In each of the games alleged to infringe this claim the hit symbol travels horizontally back and forth across the screen, so that the means for providing the horizontal control signal must include means for causing the hit symbol to move back and forth across the screen.
31. The combination of claim 29 further including means for detecting coincidence between a hit symbol and a hitting symbol and means for causing said hit symbol to change direction upon coincidence.	In each of the games alleged to infringe this claim when the hit and hitting symbols become coincident, the direction of motion of the hit symbol is altered, so the game must include means for ascertaining when that coincidence exists and means for changing the direction of motion of the hit symbol upon the occurrence of coincidence.
32. The combination of claim 25 wherein said means for generating a hit symbol further includes means for causing said hit symbol to move away from a predetermined position of the screen with a reflection angle equal to the incident angle at which said hit symbol approached said predetermined position.	In each of the games alleged to infringe this claim when the hit symbol becomes coincident with either a symbol representing a fixed marker, such as a court line or boundary line, or the edge of the screen, that symbol moves away from the fixed marker or screen edge with an angle of reflection which is equal to the angle of incidence and so the game must include means for causing the hit symbol representing a playing piece to so move.

44. Apparatus for playing a baseball type game on the screen of a cathode ray tube, comprising:	Each of the games alleged to infringe this claim is (or includes) an apparatus for playing a game on the screen of a television cathode ray tube, which game is of the type defined by the symbols recited in the body of the claim.
means for displaying a hit spot;	Each of the games alleged to infringe this claim has a symbol representing a ball, puck, etc., i.e., a hit spot, and so the game must include means for displaying that spot.
means for displaying a hitting spot;	Each of the games alleged to infringe this claim has a symbol representing a paddle, player, etc., i.e., a hitting spot, and so the game must include means for displaying that spot.
means for adjusting the vertical position of said hitting spot;	In each of the games alleged to infringe this claim the vertical position of the hitting spot is altered in response to a player operated control and so the game must include means for adjusting the vertical position of that spot.
means for serving said hit spot; and	In each of the games alleged to infringe this claim the hit spot is served and so the game must include means for serving that spot.
means for varying the vertical position of said hit spot; and	In each of the games alleged to infringe this claim the hit spot is movable in both the horizontal and vertical directions and so the game must include means for varying the vertical position of that spot.

means for denoting coincidence between said hit and said hitting spot whereby said hit spot will reverse directions.	In each of the games alleged to infringe this claim when the hit and hitting spots become coincident the direction of motion of the hit spot is reversed so that the game must include means for denoting coincidence between the hit and hitting spots and causing the direction of motion of the hit spot to be reversed.
45. Apparatus for playing a hockey type game upon the screen of a cathode ray tube, comprising:	Each of the games alleged to infringe the claim is (or includes) an apparatus for playing a game on the screen of a television cathode ray tube, which game is of the type defined by the symbols recited in the body of the claim.
means for displaying a first hitting spot;	Each of the games alleged to infringe this claim has a symbol representing a first paddle, player, etc., i.e., a first hitting spot, and so the game must include means for displaying that spot.
means for displaying a second hitting spot;	Each of the games alleged to infringe this claim has a symbol representing a second paddle, player, etc., i.e., a second hitting spot, and so the game must include means for displaying that spot.
means for displaying a hit spot;	Each of the games alleged to infringe this claim has a symbol representing a ball, puck, etc., i.e., a hit spot, and so the game must include means for displaying that spot.

means for controlling the position of said first and second hitting spots;	In each of the games alleged to infringe this claim at least the vertical positions of the first and second hitting spots are altered in response to participant operated controls and so the game must include means for controlling the position of those spots.
means for controlling the position of said hit spot including means for ascertaining coincidence between either of said hitting spots and said hit spot and means for imparting a distinct motion to said hit spot upon coincidence.	In each of the games alleged to infringe this claim the hit spot is movable in both the horizontal and vertical positions and when the hit spot is coincident with either of the hitting spots, the hit spot is given a distinct motion so that the game must have means for controlling the position of the hit spot including means for ascertaining when that coincidence exists and means for imparting a distinct motion to the hit spot upon the occurrence of coincidence.
51. Apparatus for generating symbols upon the screen of a television receiver to be manipulated by at least one participant, comprising:	Each of the games alleged to infringe this claim is for use with (or includes a television receiver as the display device and is operative to generate symbols on the screen of the receiver which may be so manipulated.
means for generating a hitting symbol; and	Each of the games alleged to infringe this claim has a symbol representing a paddle, player, etc., i.e., a hitting symbol, and so must also have means for generating that symbol.

means for generating a hit symbol including	Each of the games alleged to infringe this claim has a symbol representing a ball, puck, etc., i.e., a hit symbol, and so must have means for generating that symbol.
means for ascertaining coincidence between said hitting symbol and said hit symbol and means for imparting a distinct motion to said hit symbol upon coincidence.	In each of the games alleged to infringe this claim when the hit and hitting symbols become coincident, the hit symbol is given a distinct motion, so the game must include means for ascertaining when that coincidence exists and means for imparting a distinct motion to the hit symbol upon the occurrence of coincidence.
52. The combination of claim 51 wherein said means for generating a hitting symbol includes means for providing horizontal and vertical control signals for varying the horizontal and vertical positions of said hitting symbol.	Each of the games alleged to infringe this claim is electrically operated and has a hitting symbol movable in both the horizontal and vertical directions, so that the means for generating the hitting symbol must include means for providing control signals for varying the horizontal and vertical positions of the hitting symbol.
54. The combination of claim 51 wherein said means for generating a hit symbol includes means for providing horizontal and vertical control signals for varying the horizontal and vertical positions of said hit symbol.	Each of the games alleged to infringe this claim is electrically operated and the hit symbol is movable in both the horizontal and vertical directions, so that the means for generating the hit symbol must include means for providing control signals for varying the horizontal and vertical positions of the hit symbol.

55. The combination of claim 54 wherein said means for providing horizontal control signals for said hit symbol includes means for causing said hit symbol to move back and forth across the screen.	In each of the games alleged to infringe this claim the hit symbol travels horizontally back and forth across the screen, so that the means for providing the horizontal control signal must include means for causing the hit symbol to move back and forth across the screen.
60. Apparatus for playing games by displaying the manipulating symbols on the screen of a cathode ray tube comprising:	Each of the games alleged to infringe this claim is for use with (or includes) a television cathode ray tube and is operative to generate symbols on the screen of the television cathode ray tube which may be so manipulated for playing games.
means for generating vertical and horizontal synchronization signals;	Vertical and horizontal synchronization signals are necessary to create a useable display on a television cathode ray tube, so each of the games alleged to infringe this claim must have such a means.
means responsive to said synchronization signals for deflecting the beam of said cathode ray tube to generate a raster on said screen;	Raster generating deflection means are necessary to create a useable display on a television cathode ray tube, so each of the the games alleged to infringe this claim must have such a means.

means coupled to said synchronization signal generating means and said cathode ray tube for generating a first symbol on said screen at a position which is directly controlled by a player;	Each of the games alleged to infringe this claim includes a first symbol representing a paddle, player, etc., at a position which is directly controlled by the player, and so must include a means for generating that symbol which means must be coupled to the synchronization signal generating means to properly locate that symbol on the television cathode ray tube screen.
means coupled to said synchronization signal generating means and said cathode ray tube for generating a second symbol on said screen which is movable;	Each of the games alleged to infringe this claim includes a second symbol representing a ball, puck, etc., which is movable, and so must include a means for generating that symbol which means must be coupled to the synchronization signal generating means to properly locate that symbol on the television cathode ray tube screen.
means coupled to said first symbol generating means and said second symbol generating means for determining a first coincidence between said first symbol and said second symbol; and	In each of the games alleged to infringe this claim when the first and second symbols become coincident, the second symbol is given a distinct motion, so that the game must include such a means for determining such coincidence.
means coupled to said coincidence determining means and said second symbol generating means for imparting a distinct motion to said second symbol in response to said coincidence.	In each of the games alleged to infringe this claim when a coincidence between the first and second symbols is determined, the second symbol is given a distinct motion, so that the game must include means for imparting a distinct motion to the second symbol in response to such coincidence.

61.
The apparatus of claim 60, further including:

means coupled to said synchronizations signal generating means and said cathode ray tube for generating a third symbol on said screen at a position which is controlled by a player;

Each of the games alleged to infringe this claim includes a third symbol representing a paddle, player, etc., at a position which is directly controlled by a player and so must include a means for generating that symbol which means must be coupled to the synchronization signal generating means to properly locate that symbol on the television cathode ray tube.

means coupled to said third symbol generating means and said second symbol generating means for determining a second coincidence between said third symbol and said second symbol; and

In each of the games alleged to infringe this claim when the second and third symbols become coincident, the second symbol is given a distinct motion, so that the game must include such a means for determining such coincidence.

means coupled to said second and third symbol coincidence determining means and said second symbol generating means for imparting a distinct motion to said second symbol in response to said second coincidence.

In each of the games alleged to infringe this claim when a coincidence between the second and third symbols is determined, the second symbol is given a distinct motion, so that the game must include means for imparting a distinct motion to the second symbol in response to such coincidence.

62.
The apparatus of claim 61 further comprising means for causing said second symbol to travel across said screen from one side of said raster to another side of said raster in the absence of an occurrence of coincidence between said second symbol and said first or third symbol after coincidence of said second symbol with said third and first symbol.

In each of the games alleged to infringe this claim after coincidence between the second and the first or third symbols occurs, the second symbol will travel across the television cathode ray tube screen from one side of the raster to another side of the raster in the absence of the occurrence of another coincidence between the second and the first or third symbols, so that the game must include such a means.

63. The apparatus of claim 61 further including:	
means for determining a third coincidence of a signal representing said second symbol and a signal bearing a specific time relationship with an edge of said raster; and	In each of the games alleged to infringe this claim when the second symbol becomes coincident with either a symbol representing a fixed marker, such as a court line or boundry line, or the edge of the screen, i.e., a signal bearing a specific time relationship with an edge of the raster, the motion of the second symbol is altered, so that the game must include means for determining such coincidence.
means coupled to said third coincidence determining means and said second symbol generating means for altering the motion of said second symbol in response to said third coincidence.	In each of the games alleged to infringe this claim when a coincidence between a signal representing the second symbol and a signal bearing a specific time relationship with an edge of the raster is determined, the motion of the second symbol is altered, so that the game must include such means.
64. The apparatus of claim 63 wherein said motion altering means imparts to said second symbol a motion which is a reflection of its motion immediately prior to its motion at said third coincidence.	In each of the games alleged to infringe this claim when a coincidence between a signal representing the the second symbol and a signal bearing a specific time relationship with an edge of the raster is determined, the second symbol is given a motion which is a reflection of its motion immediately prior to such coincidence so that the game must include such means.

(d) Plaintiffs presently base their contention on documents and things relating to and describing the construction, circuitry, and operation of defendants' games, which documents

and things have been produced by defendants and/or obtained from the manufacturers and supplies of defendants' games. Plaintiffs expect to acquire additional such documents and things during the course of discovery in this action.

(e) Plaintiffs presently base their contention upon and presently intend to rely on, defendants sales and offers for sale of the television games identified in plaintiffs' response to paragraph (a) of this interrogatory.

(f) To the extent that plaintiffs' responses to paragraphs (a)-(e) of this interrogatory state the contentions or intentions of plaintiffs, plaintiffs' attorneys are those persons having the greatest knowledge thereof. To the extent that plaintiffs' responses to paragraphs (a)-(e) of this interrogatory relate to the construction or operation of defendants' games, employees of defendants or the suppliers or manufacturers of defendants' games are presumed to be the persons having the greatest knowledge thereof, but plaintiffs are unable to identify those individuals at the present time. To the extent that paragraph (e) of this interrogatory may be interpreted as requiring any further answer, plaintiffs object thereto as being unnecessarily vague and indefinite and not susceptible of being answered.

Interrogatory No. 2

(a) Identify all documents relating to the ownership by Plaintiff Sanders Associates, Inc. of the patents in suit.

(b) Identify all documents relating to the exclusive license by Plaintiff The Magnavox Company under the patents in suit.

(c) Identify all documents relating to the acquisition of, title to, or interest in the patents in suit by Plaintiffs, including all documents relating to negotiations pertinent to any title or interest in the patents.

(d) State the total consideration which Plaintiff the Magnavox Company agreed to pay to Plaintiff Sanders Associates, Inc. for The Magnavox Company's interest in the patents in suit.

(e) With respect to each agreement or the like identified in the answers to Interrogatory Nos. 2(a) and 2(b), identify the persons who negotiated them and identify all communications between Plaintiffs and other persons relating to them.

(f) Identify all communications between Plaintiffs and other persons relating to any offer to license the patents in suit.

(g) Identify all agreements, assignments, licenses or communications now or previously in effect, which provide for or relate to the grant or transfer of any right, title or interest in the patents in suit.

RESPONSE TO INTERROGATORY 2

(a) The assignment from the inventor of the patents in suit to Sanders. A copy of the assignment will be produced for inspection by defendants.

(b) An option agreement entered into between plaintiffs, a license agreement entered into between plaintiffs,

modifications to that license agreement entered into between plaintiffs, and documents relating to the entry into those agreements. Plaintiffs will produce those documents or copies of appropriate portions thereof upon entry of a protective order with defendants relating thereto because of the confidential, commercial nature of the information contained therein to the extent that such documents are not subject to a valid claim of attorney/client privilege or attorney's work product.

(c) A "Patent Agreement" entered into between the inventor of the patents in suit and Sanders. A copy of the agreement will be produced for inspection by defendants.

(d) Plaintiffs object to this interrogatory as requesting confidential, commercial information and as requesting information which is neither relevant to the subject matter involved in this action nor reasonably calculated to lead to the discovery of admissable evidence.

(e) The assignment referred to in plaintiffs' response to paragraph (a) of this interrogatory was entered into as a result of the inventor's employment relationship with Sanders. The following persons were primarily responsible for negotiating the indicated agreements referred to in plaintiffs' response to paragraph (b) of this interrogatory:

Option Agreement:

Magnavox - Gerald G. Martin and
Richard T. Seeger

Sanders - Louis Etlinger

License Agreement:

Magnavox - Gerald G. Martin and
Richard T. Seeger

Sanders - Louis Etlinger

Modifications to License Agreement:

Magnavox - Richard T. Seeger and
Thomas A. Briody

Sanders - Louis Etlinger

The requested communications will be produced in accord with plaintiffs' response to paragraph (b) of this interrogatory.

(f) and (g) Plaintiffs will produce those documents or copies of appropriate portions thereof upon entry of a protective order with defendants relating thereto because of the confidential, commercial nature of the information contained therein to the extent those documents are not subject to a valid claim of attorney/ client privilege or attorney's work product.

Interrogatory No. 3

With respect to each of the elements listed in response to Interrogatory No. 1(b) above:

(a) State which of these elements are not disclosed or taught by the following prior art items:

1. Spiegel U.S. Patent No. 3,135,815;

2. Baer U.S. Patent No. 3,728,480;

3. The video game entitled "Space War" used and known at the Massachusetts Institute of Technology about 1962;

4. The video game entitled "Space War" used at Stanford University in 1963 and 1964;

5. The video game of pool and billards shown at the ACM meeting in Detroit in 1954; and

6. Journal of the Association for Computing Machinery, Volume I, No. 4, October, 1954, pages 177-182.

(b) List all prior art of which Plaintiffs are aware that discloses or teaches any of the elements listed in the answer to Interrogatory No. 1(b) and which prior art was not cited by the Patent and Trademark Office in the patents in suit.

(c) With respect to each of the elements listed in response to Interrogatory No. 1(b), state which of these elements is not described in any prior art item known to Plaintiff.

(d) State whether Patent Examiner David L. Trafton was advised by counsel for Plaintiffs, during the prosecution of applications which matured to the patent in suit, of any of the prior art items listed in Interrogatory No. 3 above. If the answer is other than completely negative, list which prior art was brought to the attention of Examiner Trafton, state when it was brought to his attention, by whom and set forth in detail all circumstances regarding the bringing of such prior art to Examiner Trafton's attention and discussions relating to such prior art with Examiner Trafton.

RESPONSE TO INTERROGATORY 3

(a) Plaintiffs object to paragraph (a) of this interrogatory as being vague and indefinite and, thus, not

susceptible of being answered. Plaintiffs are unable to determine what defendants mean by the games referred to in items 3, 4, and 5 of this paragraph. There is no evidence in the record of this action to establish the existence of such games or to describe the games with such particularity as to inform plaintiffs of just what purported games they are referring to. Presumably defendants intend to refer to games relied upon as prior art against the patents in suit at the trial in Civil Action Nos. 74 C 1030 and 74 C 2510 in this Court. But, and particularly as to items 3 and 4, the record in that action indicated that the game "Space War" as it was allegedly used and known at either Massachusetts Institute of Technology or Stanford University was applied to many different games which were played on different general purpose computers using different programs. To the extent that this interrogatory may refer to any particular one or ones of such games, plaintiffs have no way of determining which game or games defendants are referring to.

Plaintiffs further object to this interrogatory as requesting information which is neither relevant to the subject matter of this action nor reasonably calculated to lead to the discovery of admissible evidence. The question of patent validity must be determined with respect to the patented subject matter as a whole and is simply not resolved by a determination of whether individual claim elements are found in separate pieces of alleged prior art.

However, in order to advance the prosecution of this action, plaintiffs further respond to paragraph (a) of this interrogatory in the following but expressly without admitting that any of the purported items of prior art listed may correctly be considered as prior art against the patents in suit. None of the listed items of alleged prior art disclose or teach any elements of claims 25, 26, 28, 29, 31, 32, 44, 45, 51, 52, 54, 55, or 57 of the patents in suit, items 3-6 do not teach or disclose any of the elements of claims 60, 61, 62, 63, or 64 of the patent in suit, item 1 does not teach or disclose the 3rd, 5th, or 6th recited "means" of claim 60 or any of the elements of claims 61, 62, 63, or 64 of the patents in suit, and item 2 does not teach or disclose the 6th recited "means" of claim 60 or any of the elements of claims 61, 62, 63, or 64 of the patents in suit.

(b) Plaintiffs object to this interrogatory to the extent that it places upon them any obligation to review, study, and/or analyze any or all of the prior art alleged to be relevant to the patents in suit and/or related patents and drawn to their attention in previous litigation or extensive dealings with third parties concerning those patents.

(c) Those elements identified in plaintiffs' response to paragraph (a) of this interrogatory.

(d) Plaintiffs object to paragraph (d) of this interrogatory because of the implications it contains that plaintiffs were aware during the prosecution of the applications which matured into the patent in suit of the alleged prior art items listed in paragraph (a) of this interrogatory and that there was an obligation, requirement, or need on plaintiffs, or either of them, to bring any or all of the alleged prior art items to the attention of the Patent Examiner. However, it is specifically pointed out that U.S. Patent 3,728,480 was cited to the Patent Examiner by the references to the application therefor and the descriptions thereof included in the specification of the patents in suit.

Interrogatory No. 4

With respect to U.S. Patent No. Re. 28,507:

(a) Is the term "standard television receiver" in Claim 25 intended to cover a coin-operated video game?

(b) State in detail what is meant by "distinct motion" in Claim 25 and set forth all types of visual occurrences which Plaintiffs contend fall within the definition of "distinct motion".

(c) State in detail what is meant by the term "denoting coincidence" in Claim 44.

(d) State in detail what is meant by the term "ascertaining coincidence" in Claim 51.

(e) State in detail what is meant by "distinct motion" in Claim 51 and set forth all types of visual occurrences which Plaintiffs contend fall within the definition of "distinct motion".

(f) State in detail what is meant by "distinct motion" in Claim 60 and set forth all types of visual occurrences which Plaintiffs contend fall within the definition of "distinct motion".

(g) State in detail what is meant by "distinct motion" in Claim 61 and set forth all types of visual occurrences which Plaintiffs contend fall within the definition of "distinct motion".

RESPONSE TO INTERROGATORY 4

(a) Plaintiffs contend that the term "standard television receiver" as used in claim 25 of Re. 28,507 covers the television receivers included in the coin-operated games alleged to infringe that patent as determined by Judge Grady in Civil Action Nos. 74 C 1030 and 74 C 2510.

(b) Plaintiffs contend that the term "distinct motion" as used in claim 25 of Re. 28,507 includes at least occurrences where the motion of the hit symbol is different from the motion that characterized the hit symbol immediately prior to coincidence with the hitting symbol, such as a reversed direction or any kind of different direction which

is clearly imparted by the movable hitting symbol, as determined by Judge Grady in Civil Action Nos. 74 C 1030 and 74 C 2510. Plaintiffs object to this interrogatory insofar as it requires them to set forth all types of visual occurrences which might fall within this definition as being vague and indefinite and not susceptible of being answered.

(c) The term "denoting coincidence" as used in claim 44 of Re. 28,507 is a portion of a claim element recited in the "means plus function" form specifically provided for by the patent statute, 35 U.S.C. § 112. The function of that element is stated in all the language included in the recitation of the element following the word "for", and the term "denoting coincidence" is only a part of that recitation of function. Plaintiffs contend that the term requires the apparatus recited by the claim to include an apparatus that produces an effect when the hit spot and the hitting spot are coincident.

(d) Plaintiffs contend that the term "ascertaining coincidence" as used in claim 51 of Re. 28,507 means that the element including that term is to include an apparatus that produces an effect when the hit symbol and the hitting symbol are coincident.

(e) Plaintiffs contend that the term "distinct motion" as used in claim 51 of Re. 28,507 includes at least occurrences where the motion of the hit symbol is different from the motion that characterized the hit symbol immediately prior to coincidence with the hitting symbol, such as a reversed direction or any kind of different direction which is clearly imparted by the movable hitting symbol, as determined by Judge Grady in Civil Action Nos. 74 C 1030 and 74 C 2510. Plaintiffs object to this interrogatory insofar as it requires them to set forth all types of visual occurrences which might fall within this definition as being vague and indefinite and not susceptible of being answered.

(f) Plaintiffs contend that the term "distinct motion" as used in claim 60 of Re. 28,507 includes at least occurrences where the motion of the second symbol is different from the motion that characterized the second symbol immediately prior to coincidence with the first symbol, such as a reversed direction or any kind of different direction which is clearly imparted by the movable first symbol, as determined by Judge Grady in Civil Action Nos. 74 C 1030 and 74 C 2510. Plaintiffs object to this interrogatory insofar as it requires them to set forth all types of visual occurrences which might fall within this definition as being vague and indefinite and not susceptible of being answered.

(g) Plaintiffs contend that the term "distinct motion" as used in cliam 61 of Re. 28,507 includes at least occurrences where the motion of the second symbol is different from the motion that characterized the second symbol immediately prior to coincidence with the third symbol, such as a reversed direction or any kind of different direction which is clearly imparted by the movable third symbol, as determined by Judge Grady in Civil Action Nos. 74 C 1030 and 74 C 2510. Plaintiffs object to this interrogatory insofar as it requires them to set forth all types of visual occurrences which might fall within this definition as being vague and indefinite and not susceptible of being answered.

Interrogatory No. 5

Identify each application for a patent in a country foreign to the United States filed by or on behalf of the patentees of the patents in suit or their assigns, which discloses and claims the subject matter of the patents in suit, and for each such application state:

(a) The country of filing.

(b) The serial number of the application.

(c) The date of the application.

(d) The number of the patent, if any, into which the application matured.

(e) The identity of each reference cited against said foreign application.

(f) Whether said application has been the subject of opposition or other conflict proceeding and, if so, identify the opposer, the prior art involved, the outcome of the proceeding, and all documents relating to the proceeding.

RESPONSE TO INTERROGATORY 5

(a)-(e) The requested information for foreign applications corresponding to those for the patents in suit is given in the chart attached hereto as "Exhibit A".

(f) None of the applications identified in Exhibit A has been the subject of an opposition or conflict proceeding.

Interrogatory No. 6

(a) Identify each of the officers and each of the directors of Plaintiffs.

(b) State the duties and responsibilities of each of the persons identified in the answer to Interrogatory No. 6(a).

(c) State the present address and employer of William T. Rusch, the inventor named in the patents in suit.

(d) State the present addresses of employers of all persons who assisted or worked with William T. Rusch in connection with the television gameing apparatus disclosed in the patents in suit.

(e) Identify all documents relating to the making, developing and testing of the television gaming apparatus of the patents in suit.

(f) Identify all persons who have knowledge of:

1. The subject matter of the patents in suit;

2. The commercial exploitation of the subject matter of the patents in suit; and

3. The development and history of the subject matter of the patents in suit.

(g) Identify the persons having the responsibility for deciding or bringing this lawsuit.

(h) Identify every witness by name and address which Plaintiffs expect to call at the trial in this case or whose deposition Plaintiffs expect to use at the trial in the case, and the general nature of the testimony of each witness.

(i) Identify all documents relating to the bringing of this action and attach a copy of each document to the answers.

RESPONSE TO INTERROGATORY 6

(a) The Magnavox Company:

Pieter C. Vink - President and Director

Cees Bruynes - Executive Vice President

Wallace E. J. Collins - Vice President and Secretary

Richard A. Daunoras - Vice President and Controller

Robert G. Dettmer - Vice President and Director

Donald L. Hamilton - Vice President

Samuel J. Rozel - Vice President and Secretary

James M. Whelan - Vice President and Treasurer

St. Clair Marshall - Staff Vice President

Stanley I. Cundy, Jr. - Assistant Treasurer

J. Douglas Keill - Assistant Treasurer

Thomas M. Hafner - Assistant Secretary

Jacob Kanter - Assistant Secretary

Robert T. Dunn - Director

Magnavox Consumer Electronic Company:

Cees Bruynes - Chairman and Director

Kenneth C. Meinken, Jr. - President and Director

William Chappel - Senior Vice President, Finance and Controller

John M. Fauth - Senior Vice President, Operations

Kenneth Ingram - Senior Vice President, Sales and Marketing

Robert G. Dettmer - Vice President and Director

Charles Dolk - Vice President, Product Management

James Egan - Vice President, Sales

Bruce Everly - Vice President, Planning and Operations

Gordon Hurt - Vice President, Advertising and Public Relations

Robert McCarthy - Vice President, Sales, Planning and Administration

Gerald Michaelson - Vice President, Merchandising

John Silvey - Vice President, Engineering

Byron Sites - Vice President, Industrial Relations

James M. Whelan - Vice President, Treasurer

St. Clair Marshall - Staff Vice President

Wallace E. J. Collins - Secretary

Stanley I. Cundy, Jr. - Assistant Treasurer

J. Douglas Keill - Assistant Treasurer

William B. Gerwig - Assistant Secretary

Thomas M. Hafner - Assistant Secretary

Jacob Kanter - Assistant Secretary

Richard A. Daunoras - Director

Robert T. Dunn - Director

Sanders Associates, Inc.:

Mellon C. Baird, Jr. - Group Vice President, Federal Systems Group

Jack L. Bowers - President and Chief Executive Officer and Director

Daniel C. Chisholm - Vice President, Corporate Staff and Director

John F. Egan - Vice President, Corporate Development

James F. Gallagher - Vice President, Controller

Charles H. S. Howe - General Counsel & Secretary

M. Joel Kosheff - Vice President, Finance and Director

Norman J. Marsh, Jr. - Assistant Secretary

Leo J. McLaughlin - Group Vice President, Component Products Group

Harold W. Pope - Chairman and Director

Charles L. Register - Vice President, Corporate Staff

John A. Ruggiero - Treasurer

Martin R. Richmond - Vice President, Corporate Technical Planning Director

Albert B. Wright - Vice President, Operations and Director

Douglas M. Barrett - Vice President and General Manager, Special Programs Division

William Bernstein - Vice President and General Manager, Information Products Division

Claude J. Jameson - Vice President Operations

Edward A. Miller - Vice President, Engineering

Richard A. Reed - Vice President and General Manager, Electronic Warefare Division

Eugene S. Rubin - Vice President and General Manager, Defensive Systems Division

Jerry G. Sessler - Vice President, Plans and Programs

Norman L. Stone - Vice President and General Manager, Ocean System Division

Thomas E. Woodruff - Vice President, Group Director of Science and Technology

Henry F. Argento - Director

Adm. Jackson D. Arnold (Ret.) - Director

Harry G. Bowles - Director

Louis Miltimore - Director

Russ D. O'Neal - Director

William H. Osborn, Jr. - Director

Dr. I. I. Rabi - Director

Laurence K. Marshall - Director Emeritus

Plaintiffs object to this interrogatory to the extent it may be interpreted as requesting further information as seeking information which is neither relevant to the subject matter of this action nor reasonably calculated to lead to the discovery of admissible evidence.

(b) The persons identified in plaintiffs' response to paragraph (a) of this interrogatory have the duties and responsibilities for the indicated corporation normally associated with the stated titles.

(c) Residence address: 80 Main Street, Hollis, N. H.

Present employer: Sanders Associates, Inc.

(d) The following persons are those who were primarily involved in assisting or working with William T. Rusch in connection with television gaming apparatus:

Ralph H. Baer - Residence address: 134 Mayflower Drive
Manchester, New Hampshire

Present Employer: Sanders Associates, Inc.

William L. Harrison - Residence address: 1618 Alma Road
Columbia, S.C.

(e) Plaintiffs will produce for inspection by defendants all documents relating to the making, developing, and testing of the television gaming apparatus disclosed and described in the patents in suit.

(f) Plaintiffs object to paragraph (f) of this interrogatory as being vague and indefinite and not susceptible of being answered.

(g) The persons having the primary responsibility for each plaintiff are Thomas A. Briody and Louis Etlinger.

(h) Plaintiffs do not at this time have an expectation of calling any particular witness or using the deposition of any particular witness at the trial of this case as the discovery in this action is not sufficiently advanced for plaintiffs to determine what issues will exist for resolution at trial.

(i) Such documents include notes, memoranda, and correspondence prepared at meetings of and during telephone conversations between various ones of plaintiffs' attorneys and as a result of investigations performed by those attorneys, draft complaints for filing in this action, and letters relating to those draft complaints. Plaintiffs refuse to supply a copy of those documents or any one of them to defendants as the documents are subject to valid claims of attorney-client privilege and/or attorney's work product.

Interrogatory No. 7

State whether Plaintiffs have ever made or caused to be made a search with respect to the subject matter of the patents in suit, and if so, state the following as to each such search:

(a) The date such search was made.

(b) Identify the person ordering such search.

(c) Identify the person who made such search.

(d) Identify every report of the results of such search.

(e) Identify all patents, references or publications reported as a result of such search.

(f) Identify the custodian of every document known to Plaintiffs ordering, reporting, referring or otherwise relating to said search, and specify the present location of such custodian.

(g) Attach a copy of each document or other tangible things relating to the above answers.

RESPONSE TO INTERROGATORY 7

Magnavox had two such searches made.

(a) A. Approximately October, 1971.

B. Approximately July, 1972.

(b) Richard T. Seeger, Esq.

(c) The identity of the persons actually conducting the searches is unknown to plaintiffs.

(d) A. Letter, Rodger M. Rickert, Esq. of Jeffers and Rickert to Richard T. Seeger, dated November 4, 1971.

B. Letter, Frank C. Maley to Richard T. Seeger, Esq., dated July 28, 1972.

Letter, Frank C. Maley to Richard T. Seeger, Esq., dated August 4, 1972.

A. and B. Letter, Rodger M. Rickert, Esq. to Richard T. Seeger, Esq., dated August 3, 1972.

Letter, Rodger M. Rickert, Esq. to Richard T. Seeger, Esq., dated August 10, 1972.

(e) See "Exhibit B" hereto.

(f) Plaintiffs' attorneys.

(g) Plaintiffs refuse to supply a copy of the documents or any one of them to defendants as the documents are subject to valid claims of attorney/client privilege and/or attorney's work product.

Interrogatory No. 8

Will Plaintiffs at the trial urge commercial success in support of the validity of the patent in suit? If so, identify all documents and other material upon which Plaintiffs will rely for commercial success and state the following:

(a) The annual sales volume in dollars and units of Plaintiffs' video games and of each licensee's video games incorporating subject matter of the patents in suit.

(b) Identify each such device for which sales are included in the answer to subparagraph (a) hereof.

(c) Set forth the selling price of each device referred to in subparagraph (b) hereof.

(d) State in detail all other facts and information known to Plaintiffs which support Plaintiffs' position of commercial success.

(e) Identify all documents relating or evidenceing all of the answers to subparagraphs (a) through (d) hereof.

(f) Identify all advertising and sales literature employed by or on behalf of Plaintiffs concerning video games.

(g) Identify and describe the catalogs, advertisements, sales literature and brochures of Plaintiffs which relate to video games.

(h) Specify the number of video games, which have been sold and which have been returned to Plaintiffs and in each case identify the purchaser, specifying the reason for the return and identify all documents relating to such return.

(i) Identify all complaints by Plaintiffs' customers of video games covered by the patents in suit, and identify each customer and all persons having knowledge of the facts concerning such complaint.

RESPONSE TO INTERROGATORY 8

Yes. After entry of a suitable protective order with defendants to protect the confidential, commercial nature of the material contained therein, plaintiffs will produce the documents and other materials it presently intends to rely upon for commercial success at the location or locations where those documents are maintained by either plaintiff in the normal course of its business.

(a)-(c) Plaintiffs will supply the requested information as to their own sales of video games only after entry of a suitable protective order with defendants to protect the confidential, commercial nature of the information requested. Plaintiffs will supply the requested information as to their licensees sales to the extent they are able to do so consistent with their obligations to those licensees and only after entry of a protective order.

(d) Acceptance of licenses by the major and other manufacturers of television games in both the United States and abroad, the revenues received by plaintiffs from those licensees, and the sales of television games by Magnavox and its licensees.

(e) After entry of a suitable protective order with defendants to protect the confidential, commercial nature of the material contained therein, plaintiffs will produce the requested documents at the location or locations where those documents are maintained by either plaintiff in the normal course of its business.

(f) and (g) Plaintiffs will produce the requested documents to the extent they are presently available at the location or locations where those documents are maintained by either plaintiff in the normal course of its business.

(h) and (i) After entry of a suitable protective order with defendants to protect the confidential commercial nature of the material contained therein, plaintiffs will produce the documents from which the requested information may be ascertained at the location or locations where the documents are maintained by either plaintiff in the normal course of its business.

Interrogatory No. 9

State whether the product of the patents in suit was developed in part or in total in the performance of a United States government, vendor of Plaintiffs' customer's sponsored program, and if so:

(a) As to each project, identify the customer and identify the government, vendor or customer project by name and applicable number and the date it was initiated and identify the consideration involved and any other party or parties to a particular project.

(b) Identify all contracts involved in such project and all correspondence between Plaintiffs and any representative or agent of the government, vendor or customer relating to each project.

(c) Identify and give the present location and custodian of every document which is identified in the answer to this Interrogatory and attach a copy of each document to the answers.

RESPONSE TO INTERROGATORY 9

Plaintiffs object to this interrogatory as being vague and indefinite and not susceptible of being answered. However, in order to advance the prosecution of this action, they further respond thereto by stating that the television games disclosed in the patents in suit were not developed either in part or in total in performance of a program sponsored by the United States Government, any customer of either plaintiff, or any vendor of either plaintiff.

January 5, 1979

Theodore W. Anderson

Neuman, Williams, Anderson & Olson
Attorneys for The Magnavox Company
and Sanders Associates, Inc.

77 West Washington Street
Chicago, Illinois 60602
(312) 346-1200

Subscribed and sworn to before me this 5th day of January, 1979, in Chicago, Illinois.

Notary Public

My Commission expires: Sept. 17, 1981

The foregoing objections and contentions are asserted or stated on behalf of The Magnavox Company and Sanders Associates, Inc. by:

Theodore W. Anderson

Neuman, Williams, Anderson & Olson
Attorneys for The Magnavox Company
and Sanders Associates, Inc.

77 West Washington Street
Chicago, Illinois 60602
(312) 346-1200

Foreign Applications Corresponding to 3,659,284 and Re 28,507

Country	Application No.	Patent No. (if any)	Cited References	Filing Date
Australia	14365/70	442,967		04/27/70
Belgium	89546	751,008		05/27/70
Canada	075,905	920,160	U.S. Patents 2,455,922 and 2,847,661	02/26/70
Canada	236,739	993,001		09/30/75
England	25007/70	1,318,051		05/22/70
England	6324/73	1,319,410		10/03/73
Germany	P 20 17 312.0-31	2,017,312	Publication "Funk und Ton" 1954, No. 4 pages 179 to 186	04/10/70
Greece	45	46,582		08/19/72
Greece	4943	51,156		08/01/74
Israel	33915	33,915		02/02/70
Israel	41011	41,011		05/29/73
Italy	24,954A/70	893,433		05/22/70
Argentina	243.733	208,872		08/24/72
France	70/19368	70/19368	U.S. Patent 2,784,247; British Patent 633,424	05/27/70
Holland	70/07,591	152,422	Dutch Patent Specification 69,04775; British Patent 633,424; U.S. Patent 2,784,247	05/26/70
Japan	44 908/70	778,416	Publication "OKI DENKI GIHC Vol. 34, No. 1, pp. 80-82	05/27/70
Japan	119828/74	852,060		10/16/74
Mexico	136583			06/28/72
Spain	406.0 16	406,016		08/21/72
Spain	433112	433,112		12/19/74
Sweden	6931/70	304,186	Swedish Patent Application 3520/69	05/20/70

Foreign Applications Corresponding to 3,659,284 and Re 28,507

(Continued)

Country	Application No.	Patent No. (if any)	Cited References	Filing Date
Switzerland	7777/70	529,491		05/25/70
Venezuela	1571-72	30,171		08/18/72
Venezuela	2581-74	33,789		12/19/74
Hong Kong	76/1976	76/1976		02/12/76
Hong Kong	484/1977	484/1977		09/22/77
Singapore	380/1975	380/1975		10/17/75
West Malaysia	260/75	260/75		12/09/75